

ABSTRACT OF THE DISCLOSURE

A selective frequency extractor is disclosed which forwards one or more selected frequencies of a wavelength division multiplex input signal consisting of N channels to one output port and all the other frequencies to another output port. A reconfigurable frequency add and drop multiplexer is also disclosed. The input signal is divided up by a first demultiplexer and routed to a plurality of interleaved stages of optical switches for selectively feeding a plurality of input ports of a multiplexer, whose routing properties are then used for extracting one or more frequencies from the input signal or for reconfigurable frequency add and drop multiplexing.